

CONTENTS

iii

VOL. 20, NO. 1, JANUARY 1987

W. L. RIES, J. K. GONG AND J. C. GUNSOLLEY. The distribution and kinetics of nuclei in rat osteoclasts	1
A. V. TJURMIN, R. V. LACIS AND O. YU. PRINTSEVA. Proliferation kinetics of aortic smooth muscle cell populations: comparison of normotensive and spontaneously hypertensive rats	15
R. E. PLOEMACHER AND N. H. C. BRONS. Role of splenic stroma in the action of bacterial lipopolysaccharides on radiation mortality: a study in mice carrying the Sl^l allele	29
D. H. RUTGERS, D. P. P. NIESSEN AND P. M. VAN DER LINDEN. Cell kinetics of hypoxic cells in a murine tumour <i>in vivo</i> : flow cytometric determination of the radiation-induced blockage of cell cycle progression	37
K. J. FINNEY, P. INCE, D. R. APPLETON, J. P. SUNTER AND A. J. WATSON. A trophic effect of epidermal growth factor (EGF) on rat colonic mucosa in organ culture	43
H. BARBASON, CH. HERENS, M.-C. MORMONT AND B. BOUZAHAH. Circadian synchronization of hepatocyte proliferation in young rats: the role played by adrenal hormones	57
K. FUJIKAWA-YAMAMOTO, S. ODASHIMA, T. KURIHARA AND F. MURAKAMI. DNA synthesis in Bloom's syndrome fibroblasts	69
R. GIRARD, P. METEZEAU AND R. CHABY. Repopulation of spleens of irradiated mice after injection of spleen cell subpopulations	77
T. KIRIKAE, M. YOSHIDA, H. SAWADA, H. TEZUKA, Y. KITAMURA AND K. J. MORI. Maintenance of granulopoiesis in long-term bone marrow cultures from W/W^v mice and effects of lipopolysaccharide on granulopoiesis in culture	89
J. B. M. BOEZEMANN, F. W. BAUER AND R. M. DE GROOD. Flow cytometric analysis of the recruitment of G_0 cells in human epidermis <i>in vivo</i> following tape stripping	99
H. B. BENESTAD, H. J. K. SAXHOLM AND E. M. SIEBKE. A new <i>in vitro</i> assay for cell motility and proliferation	109
Letters to the Editor	121
Announcement	123

VOL. 20, NO. 2, MARCH 1987

G. D. WILSON, J. A. SORANSON AND A. A. LEWIS. Cell kinetics of mouse kidney using bromodeoxyuridine incorporation and flow cytometry: preparation and staining	125
A. B. J. SPEEKENBRINK AND D. M. V. PARROTT. Modulation of <i>in vitro</i> thymidine incorporation into crypt cells from the murine small intestine	135
J. D. PITTS AND R. R. BURK. Mechanism of inhibition of junctional communication between animal cells by phorbol ester	145

R. COWAN AND V. B. MORRIS. Determination of proliferative parameters from growth curves	153
G. M. MORRIS AND J. W. HOPEWELL. Cell population kinetics in pig epidermis: further studies	161
A. COSTA, R. SILVESTRINI, G. DEL BINO AND R. MOTTA. Implications of disaggregation procedures on biological representation of human solid tumours	171
M. LÖFFLER, A. WENZEL AND F. SCHNEIDER. Cytokinetic studies on the switch from glucose to uridine metabolism, and vice versa, of Ehrlich ascites tumour cells <i>in vitro</i>	181
E. G. WRIGHT AND S. A. LORIMORE. The production of factors regulating the proliferation of haemopoietic spleen colony-forming cells by bone marrow macrophages	191
M. EL-ALFY AND C. P. LEBLOND. Long duration of mitosis and consequences for the cell cycle concept, as seen in the isthmal cells of the mouse pyloric antrum. I. Identification of early and late steps of mitosis	205
M. EL-ALFY AND C. P. LEBLOND. Long duration of mitosis and consequences for the cell cycle concept, as seen in the isthmal cells of the mouse pyloric antrum. II. Duration of mitotic phases and cycle stages, and their relation to one another	215
J. L. HAAR, W. MCLEAN GROGAN, J. D. POPP AND J. K. TAUBENBERGER. Chemoattraction enrichment of Thymus-homing bone marrow cells.	227
E. ØSTERGAARD, A. V. FISKE AND T. KARRING. The effect of prolonged stress-inducing electrical stimulation on cell proliferation in rat palatal epithelium	233
Proceedings of the Cell Kinetics Society Tenth Annual Meeting	241
The Eleventh Biennial Conference of the International Cell Cycle Society	253

VOL. 20, NO. 3, MAY 1987

A. J. FRIEDENSTEIN, R. K. CHAILAKHYAN AND U. V. GERASIMOV. Bone marrow osteogenic stem cells: <i>in vitro</i> cultivation and transplantation in diffusion chambers	263
D. C. ALLISON, M. CHAKERIAN, P. F. RIDOLPHO, S. ANDERSON, S. CURLEY, M. E. WILDER AND J. ROBERTSON. Combined flow and absorption DNA measurements of [³ H]TdR-labelled tumour cells. I. Studies of MCa-II cells grown as tumours <i>in vivo</i> and as exponential cultures <i>in vitro</i>	273
C. L. VILLIERS, F. K. A. ADAM, N. MILLER, D. BROWN AND N. C. HUGHES-JONES. Prolongation of cell cycle transit time and the presence of non-cycling cells in human lymphoblastoid cells cultured under adverse conditions	291
E. G. WRIGHT AND S. A. LORIMORE. Haemopoietic stem cell proliferation in the bone marrow of Sl/Sl ^d mice	301
G. UCCI, A. RICCARDI, P. DÖRMER, M. DANOVA, R. LUONI, C. M. MONTECUCCO, R. CIOTTO AND M. GIRINO. Proliferation kinetics of plasma cells and of normal haemopoietic cells in multiple myeloma	311

CONTENTS

v

N. AHMAD AND J. V. RUCH. Comparison of growth and cell proliferation kinetics during mouse molar odontogenesis <i>in vivo</i> and <i>in vitro</i>	319
C. NADAL. Inhibition of hepatocyte proliferation <i>in vivo</i> by a glycopeptide from rat serum	331
S. MICHELSON, A. S. GLICKSMAN AND J. T. LEITH. Growth in solid heterogeneous human colon adenocarcinomas: comparison of simple logistical models	343
R. X. ZHANG, T. NAGASHIMA AND T. HOSHINO. Cytotoxic effect of sister chromatid exchange in exponentially growing rat 9L gliosarcoma cells after brief exposure to BrdU	357
R. A. TOBEY, H. A. CRISSMAN, M. E. WILDER, F. TRAGANOS AND Z. DARZYNKIEWICZ. Sensitivity to X-irradiation in relation to cell size of CHO cells synchronized in early G ₁	363
Letter to the Editor	367
Announcement	368

VOL. 20, NO. 4, JULY 1987

E. K. LUND AND M. W. SMITH. Effect of graft versus host reaction on cell cycle time in neonatal mouse jejunum	369
D. M. EASTON AND M. H. SCHNEIDERMAN. Prediction of X-ray induced mitotic delay and recovery of G ₂ cells	379
H. BAISCH AND J. GERDES. Simultaneous staining of exponentially growing versus plateau phase cells with the proliferation-associated antibody Ki-67 and propidium iodide: analysis by flow cytometry	387
N. M. BLACKETT. Haemopoietic spleen colony growth: a versatile, parsimonious, predictive model	393
A. W. RANASINGHE, N. W. JOHNSON AND M. A. SCRAGG. Iron deficiency depresses cell proliferation in hamster cheek pouch epithelium	403
M. T. BESSON, G. CORDIER, B. QUENNEDEY, A. QUENNEDEY AND J. DELACHAMBRE. Variability of ecdysteroid-induced cell cycle alterations in <i>Drosophila</i> Kc sublines	413
S. A. LORIMORE AND E. G. WRIGHT. Stem cell maintenance and commitment to differentiation in long-term cultures of murine marrow obtained from different spatial locations in the femur	427
V. G. TYAZHELOVA. Regulation of recovery in the erythyroid lineage: model studies	435
K. NAITO, S. SKOG, B. TRIBUKAIT, L. ANDERSSON AND H. HISAZUMI. Cell cycle related [³ H] thymidine uptake and its significance for the incorporation into DNA	447
Book review	459
Announcement	460

VOL. 20, NO. 5, SEPTEMBER 1987

C. S. POTTEN, R. SAFFHILL AND H. I. MAIBACH. Measurement of the transit time for cells through the epidermis and stratum corneum of the mouse and guinea-pig	461
S. F. BLIVEN, T. E. SCHNEIDERMAN AND J. T. LEITH. Cell cycle responses of heterogeneous human colon adenocarcinoma subpopulations to X-irradiation	473
V. A. KOSLOV, I. A. ORLOVSKAYA AND I. G. TSYRLOVA. The effect of haemopoietic stem cell proliferation on the humoral immune response in mice	485
M.-N. LOMBARD, C. NADAL AND M.-J. MONNOT. <i>In vitro</i> effect of glycopeptide acting <i>in vivo</i> on hepatocyte cell cycle	493
S. MICHELSON, J. T. LEITH AND A. S. GLICKSMAN. A technique to analyse the emerging zonality of heterogeneous solid tumours	499
P. UBEZIO AND A. ROSSOTTI. Sensitivity of flow cytometric data to variations in cell cycle parameters	507
A. M. MCNICOL AND A. E. DUFFY. A study of cell migration in the adrenal cortex of the rat using bromodeoxyuridine	519

VOL. 20, NO. 6, NOVEMBER 1987

I. D. BASSUKAS AND B. MAURER-SCHULTZE. A modification of the grain count halving method for detailed analysis of cell kinetic parameters	527
V. G. TYAZHELOVA. Oscillations in blood cells as a consequence of suppressed bone marrow cell production	539
M. J. FADDY, E. TELFER AND R. G. GOSDEN. The kinetics of pre-antral follicle development in ovaries of CBA/Ca mice during the first 14 weeks of life	551
M. HEENEN, P. GALAND, V. DE MAERTELAER AND P. H. HEENEN. Psoriasis: hyperproliferation cannot induce characteristic epidermal morphology	561
E. A. SLOSBERG, B. M. SCHER, W. SCHER, S. JOSEPHSON AND S. WAXMAN. Induction of differentiation in mouse erythroleukaemia cells by the action of papain at the cell surface	571
J. GÓMEZ-LECHÓN AND J. V. CASTELL. Evidence for arrested G ₂ cell subpopulation in rat liver inducible to mitosis	583
L. B. OWEN-SCHAUB, G. P. HEMSTREET III, L. L. HEMINGWAY, S. R. ABRAHAM AND L. E. DEBAULT. Population dynamics of the murine lymphokine activated killer system: precursor frequency and kinetics of maturation and renewal	591
D. L. DEWEY. Cycle reset in a melanoma cell line caused by cooling	603
K. MILLER. Proliferation kinetics of human B- and T-lymphocytes	611

CONTENTS

vii

E. FIBACH. Analysis of the growth kinetics of murine erythroleukaemia cells following commitment to terminal differentiation	617
N. F. KEMMER AND J. K. KIRKWOOD. Cell kinetics and longitudinal bone growth in birds	625
Proceedings of the Cell Kinetics Society Eleventh Annual Meeting	631
Announcement	645
Author Index to Volume 20	647